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ALEXANDRIA, VA 22320			ART UNIT	PAPER NUMBER
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

MAILED

Application Number: 09/683,531 Filing Date: January 16, 2002

Appellant(s): HAMILTON, ROBERT S.

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Technology Center 2600

Hamilton For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01/11/2005.

A statement identifying the real party in interest is contained in the brief.

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(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The rejection of claims 1-18 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,745,102 BLOCH ET AL. 4-1998

6,118,426 ALBERT ET AL. 9-2000

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al (US 5,745,102) hereinafter Bloch in view of Albert et al (US 6,118,426) hereinafter Albert.

1. As to claims 1 and 10, Bloch teaches an addressable display useable as a label for recording media (see abstract), the display label, comprising:

a display device usable as the label (the apparatus for displaying filename information on a floppy disk is disclosed. The apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk, see abstract). Thus, Bloch teaches the display label as claimed. Bloch further teaches the display label including:

an energy source that generates an operating signal (a battery 116, could be augmented with a photo-voltaic cell which provide power for the LCD displays, fig. 4A, col. 3, lines 63-65);

an embedded optical data link for bi-directional communication with a recording/play device (optical coupler including an infrared light emitting diode

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(IR-LED) transmitter and a phototransistor receiver, col. 9, lines 44-49, with computer/disk driver, fig. 2A, col. 9, lines 40-41);

a microcontroller that receives the operating signal generated by the energy source and a signal from the optical data link and provides a control signal to the display device so that image is generated on the label of the recording media (microcontroller 563, fig. 5C, is detailed of a memory 414, fig. 4A. Control unit 560 which includes a microcontroller 563 and an internal memory 564 storing the digital representation of the filenames to be displayed, col. 8, lines 9-12. The control unit 560 receives the directory data (e.g. data and addresses) in a serial manner, converts it to parallel and stores the information in the internal memory, col. 8, lines 19-22);

wherein the label is automatically updated by the recording/play device (the apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk, see abstract).

Accordingly, Bloch teaches all of the claimed limitations, except for he does not explicitly teach a bistable display device.

However, Albert teaches the encapsulated electrophoretic display can maintain the desirable feature of bistability (col. 7, lines 24-27). Albert further teaches the indicator 10 includes an electronically addressable display 12 which is capable of changing between at least two states (col. 7, lines 32-34).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the Bloch's display label to make the display label bistable as taught by Albert in order to achieve the benefit of a highly-flexible, reflective display which can be manufactured easily, and the display itself can be made inexpensively (see Albert, col. 2, lines 20-27); and the bistable display can be placed onto or incorporated into highly flexible plastic substrates, fabric, or paper (see Albert, col. 7, lines 18-20).

- 2. As to claims 2 and 11, Albert teaches wherein the bistable display comprises a transducer (a transducer 18, fig. 2, col. 14, line 25), and bistable display can be placed onto or incorporated into paper (an electric paper, col. 7, lines 18-20).
- 3. As to claims 3 and 12, Albert teaches wherein the bistable display comprises a gyricon display (his encapsulated electrophoretic display is equivalent to do the gyricon display, col. 7, line 24).
- 4. As to claims 4, 5, 13 and 14, Albert teaches wherein the power supply is at least one of a thin film battery (the power source 40 can be a thin film battery, col. 15, line 54), and an ambient energy source (a photo cell, col. 15, line 53).
- 5. As to claims 6 and 15, the combination of Bloch with Albert teaches wherein the bistable display detects at least one of a write-to function and a read-function. (See Albert, the computer access the memory which is indicative of writing filename information, col. 10, lines 3-5; it is also contemplated that a read of segment, col. 10, line12-13). Thus, the memory performs the functions of a write-to function, and a read-from function as claimed.

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6. As to claims 7 and 16, the combination of Bloch with Albert teaches wherein the bistable display retrieves at least one of: format and access authorization. (See Albert, the controller 340 looks for this identification number 360 and updates the display 350 with the information on the attached data stream if a match between the transmitted ID code and the stored identification number 360 is made, col. 14, lines 37-40), as modified by Bloch, teaches serialization information (the bit-serial signal, col. 8, line 43) through the optical data link (a control unit 520 is employed to received a converted optical input signal from a phototransistor, col. 7, lines 62-64).

- 7. As to claims 8 and 17, the combination of Bloch with Albert teaches wherein the bistable display evaluates at least one of: content transfer. (See Albert, microcontroller 563 deliver the data to the LCD, col. 8, lines 16-17).
- 8. As to claims 9 and 18, Bloch teaches an addressable display useable as a label for recording media associated with a method (see abstract), the display label, comprising:

a display device usable as the label (the apparatus for displaying filename in formation on a floppy disk is disclosed. The apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk, see abstract). Bloch further teaches the display label including:

an energy source that generates an operating signal (a battery 116, could be augmented with a photo-voltaic cell which provide power for the LCD displays, fig. 4A, col. 3, lines 63-65);

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an embedded optical data link for bi-directional communication with a recording/play device (optical coupler including an infrared light emitting diode (IR-LED) transmitter and a phototransistor receiver, col. 9, lines 44-49, with computer/disk driver, fig. 2A, col. 9, lines 40-41);

a microcontroller that receives the operating signal generated by the energy source and a signal from the optical data link and provides a control signal to the display device so that image is generated on the label of the recording media (microcontroller 563, fig. 5C, is detailed of a memory 414, fig. 4A. Control unit 560 which includes a microcontroller 563 and an internal memory 564 storing the digital representation of the filenames to be displayed, col. 8, lines 9-12. The control unit 560 receives the directory data (e.g. data and addresses) in a serial manner, converts it to parallel and stores the information in the internal memory, col. 8, lines 19-22);

user configurable pattern electrodes affixed to a portion of the display (the electrodes 316 are shaped to give the desired segment shapes. All numbers and most letters can be displayed on this matrix, fig. 3A, col. 5, lines 40-42), the pattern electrodes receiving the control signal from the controller and applying an electric field across the user selected portion of the display device (in addition to driver terminal trips 212 including the electrodes 316, the floppy drive 210 provide the appropriate electrical signal, col. 5, lines 7-9, the disk drive 210 modified to make contact with disk terminal strip 112 including the electrodes 316 and interact with the LCD display 110, col. 5, lines 12-14).

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Accordingly, Bloch teaches all of the claimed limitations, except for a bistable display device.

However, Albert teaches the encapsulated electrophoretic display including bistability (col. 7, lines 24-27). Albert further teaches the indicator 10 includes an electronically addressable display 12 which is capable of changing between at least two states (col. 7, lines 32-34).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the Bloch's display label to make the display label bistable as taught by Albert in order to achieve the benefit of a highly-flexible, reflective display which can be manufactured easily, and the display itself can be made inexpensively (see Albert, col. 2, lines 20-27); and the bistable display can be placed onto or incorporated into highly flexible plastic substrates, fabric, or paper (see Albert, col. 7, lines 18-20).

(11) Response to Argument

Response to argument A.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have

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been obvious to a person of ordinary skill in the art at the time of the invention to modify the Bloch's display label to make the display label bistable as taught by Albert in order to achieve the benefit of a highly-flexible, reflective display which can be manufactured easily, and the display itself can be made inexpensively (see Albert, col. 2, lines 20-27); and the bistable display can be placed onto or incorporated into highly flexible plastic substrates, fabric, or paper (see Albert, col. 7, lines 18-20).

Response to argument B, section (1).

Appellant argues that "In contrast, the pending claims relate to a bistable display device usable as the label, the label including, an energy source (power source)..., an embedded optical data link for bi-directional communication with a recording/play device, and a microcontroller that receives the operating signal generated by the energy source (power source) and a signal from the optical data link. In other words, the rejected claims recite a label having these features. In contrast, Bloch discloses the alleged corresponding features incorporated directly on or in a housing of a floppy disk. Thus, Bloch does not disclose, suggest, or even contemplate a label of any type, having the unique features as recited in the claims", at page 10, third paragraph. Examiner respectfully disagrees. As stated infra with respect to claims 1, 9, 10 and 18, Examiner finds that Bloch teaches an addressable display useable as a label for recording media. See abstract, teaching, "the apparatus for displaying filename in formation on a floppy disk is disclosed. The apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk". Bloch further teaches the display label comprising: an

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energy source that generates an operating signal. See fig. 4A, col. 3, lines 63-65, teaching, "a battery 116, could be augmented with a photo-voltaic cell which provide power for the LCD displays". Bloch further teaches an embedded optical data link for bidirectional communication with a recording/play device. See col. 9, lines 44-49, teaching, "optical coupler including an infrared light emitting diode (IR-LED) transmitter and a phototransistor receiver. See fig. 2A, col. 9, lines 40-41, teaching, "with computer/disk driver". Bloch further teaches a microcontroller that receives the operating signal generated by the energy source and a signal from the optical data link and provides a control signal to the display device so that image is generated on the label of the recording media. See col. 8, lines 9-12, teaching, "microcontroller 563, fig. 5C, is detailed of a memory 414, fig. 4A. Control unit 560 that includes a microcontroller 563 and an internal memory 564 storing the digital representation of the filenames to be displayed. See col. 8, lines 19-22, teaching, "the control unit 560 receives the directory data (e.g. data and addresses) in a serial manner, converts it to parallel and stores the information in the internal memory." Thus, the combination of Bloch with Albert teaches the limitation of the bistable display that can be placed onto or incorporated into highly flexible plastic substrate (col. 7, lines 18-20).

Response to argument B, section (2).

Appellant argues that "Albert does not disclose or suggest an addressable display usable as a label for recordable media, the label including an embedded optical link for bi-directional communication with a recording/play device and a controller that receives the operating signal generated by the energy source" at page 11, lines 10-13.

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Examiner respectfully disagrees. As stated *supra* with respect to claims 1, 9, 10 and 18, Examiner finds that Bloch teaches an addressable display useable as a label for recording media. See abstract, teaching, "an apparatus for displaying filename information on a floppy disk is disclosed. The apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk". Bloch further teaches an embedded optical data link for bi-directional communication with a recording/play device. See col. 9, lines 44-49, teaching, "optical coupler including an infrared light emitting diode (IR-LED) transmitter and a phototransistor receiver. See fig. 2A, col. 9, lines 40-41, teaching, "with computer/disk driver". Bloch further teaches a microcontroller that receives the operating signal generated by the energy source and a signal from the optical data link and provides a control signal to the display device so that image is generated on the label of the recording media. See col. 8, lines 19-22, teaching, "microcontroller 563, fig. 5C, is detailed of a memory 414, fig. 4A. Control unit 560 which includes a microcontroller 563 and an internal memory 564 storing the digital representation of the filenames to be displayed, col. 8, lines 9-12. The control unit 560 receives the directory data (e.g. data and addresses) in a serial manner, converts it to parallel and stores the information in the internal memory".

Appellant argues that "Albert does not show a label" at page 11, line 18.

Examiner respectfully disagrees. As stated *supra* with respect to claims 1, 9, 10 and 18,

Examiner finds that Albert teaches a display label. See col. 7, lines 18-20, teaching, "the bistable display can be placed onto or incorporated into highly flexible substrate".

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Appellant argues that "Albert does not disclose or suggest a label including an energy source that generates an operating signal, an embedded optical link for bidirectional communication with a recording/play device and an microcontroller that receives the operating signal generated by the energy source and a signal from optical data link and provides a control signal to the bistable display device so that an image is generated on the label of the recording device, wherein the label is automatically updated by the recording device," at page 11, line 20 through page 12, line 2. Examiner respectfully disagrees. As stated supra with respect to claims 1, 9, 10 and 18, Examiner finds that Bloch teaches a display label. See abstract, teaching, "an apparatus for displaying filename information on a floppy disk is disclosed. The apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk". Bloch further teaches the label including: an energy source that generates an operating signal. See fig. 4A, col. 3, lines 63-65, teaching, "a battery 116, could be augmented with a photovoltaic cell which provide power for the LCD displays". Bloch further teaches an embedded optical data link for bi-directional communication with a recording/play device. See fig. 2A, col. 9, lines 44-49, teaching, "optical coupler includes an infrared light emitting diode (IR-LED) transmitter and a phototransistor receiver with computer/disk driver". Bloch further teaches a microcontroller that receives the operating signal generated by the energy source and a signal from the optical data link and provides a control signal to the display device so that image is generated on the label of the recording media. See col. 8, lines 19-22, teaching, "microcontroller 563, fig.

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5C, is detailed of a memory 414, fig. 4A. Control unit 560 that includes a microcontroller 563 and an internal memory 564 store the digital representation of the filenames to be displayed. The control unit 560 receives the directory data (e.g. data and addresses) in a serial manner, converts it to parallel and stores the information in the internal memory." Bloch further teaches wherein the recording device automatically updates the label. At the abstract he teaches, "the apparatus utilizes a modified floppy disk housing and a modified floppy disk driver to automatically label the floppy disk with the filenames being copied to or deleted from the disk". Therefore, the combination of Bloch with Albert teaches the limitation of the bistable display that can be placed onto or incorporated into highly flexible plastic substrate (col. 7, lines 18-20).

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

Kevin M. Nguyen Patent Examiner Art Unit 2674

Kevin M. Ngyen

KMN October 3, 2005

Conferees

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